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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/588,747

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Thomas Bayer

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EXAMINER

BOES, TERENCE

ART UNIT

PAPER NUMBER

3656

MAIL DATE

DELIVERY MODE

10/31/2011

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

10/588,747

Applicant(s)

BAYER ET AL.

Examiner

TERENCE BOES

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 October 2011.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on \_\_\_\_; the restriction requirement and election have been incorporated into this action.
- 4) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 5) ☒ Claim(s) 19-36 is/are pending in the application.
- 5a) Of the above claim(s) 31 and 32 is/are withdrawn from consideration.
- 6) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 7) ☒ Claim(s) 19-30 and 33-36 is/are rejected.
- 8) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 9) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 10) ☐ The specification is objected to by the Examiner.
- 11) ☒ The drawing(s) filed on 08/09/2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 12) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftperson's Patent Drawing Review (PTO-943)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 08/09/2006
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_

## DETAILED ACTION

### *Election/Restrictions*

1. Claims 31 and 32 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 10/12/2011.

### *Drawings*

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the needle roller bearings (as in claim 22) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an

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application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 23, 24, and 36 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. The term "slightly" in claim 23 is a relative term which renders the claim indefinite. The term "slightly" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

5. Claim 36 recites the limitation "the guide elements" in line 1. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 19-30, and 33-36, as best understood, are rejected under 35 U.S.C. 102(b) as being anticipated by Kiunke US 4,305,307.

With respect to claim 19, Neff discloses: A linear drive with at least one motor element (Figures 10-15) mounted on or in a retaining element (89), the at least one motor element driving a pinion (83) directly or indirectly, optionally via an integrated drive, said pinion interacting with a linear guide (78), and the retaining element being movable in relation to a receiving element by at least one actuator (one of 98-100).

With respect to claim 20, Neff discloses: A linear drive with at least one motor element (Figures 10-15) mounted on or in a retaining element (flange of 89), the at least one motor element driving a pinion (83) directly or indirectly, optionally via an integrated drive, said pinion interacting with a linear guide (78), wherein in order to guarantee permanent freedom from backlash and/or permanent two-flank contact between said pinion and said linear guide, the retaining element can be controlled, moved or preloaded under active control during operation in response to a measurement of force in horizontal and/or vertical direction of the pinion via at least one actuator in relation to a receiving element (the retaining element is capable of being controlled).

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With respect to claim 21, Neff discloses: the retaining element is coupled to the receiving element (86) by at least one guide element (98) and can move back and forth in a linear direction in relation to the receiving element (the device performs this function).

With respect to claim 22, Neff discloses: each said guide element is designed as one of a leaf spring element (one of 98-100), a linear guide, and a needle roller bearing.

With respect to claim 23, Neff discloses: the retaining element is slightly distant from the receiving element and arranged parallel thereto (86 is slightly distant from 89).

With respect to claim 24, Neff discloses: in each side area in an area of one upper side and in an area of one lower side of said retaining element and said receiving element, said receiving element (86) and said retaining element (89) are each linked to one another in flange areas by leaf spring elements (98-100).

With respect to claim 25, Neff discloses: at least one side area of the receiving element (86), a connecting piece (102) engages at least partly in a recess (95 or 96) of the retaining element (flange of 89) and said at least one actuator (99 or 100) is employed between a flange (surface of recess 95 or 96) of the retaining element (89) and the connecting piece (102).

With respect to claim 26, Neff discloses: each said actuator comprises one of a piezo actuator, a shape memory actuator, an electrically operated actuator, a mechanically operated actuator (98-100 are mechanically operated actuators), and a hydraulically operated actuator.

With respect to claims 27, Neff discloses: at least one force and/or position sensor (one of 98-100) is assigned to the at least one guide element.

With respect to claims 28, Neff discloses: at least one force and/or position sensor (one of 98-100) is assigned to the at least one actuator.

With respect to claims 29, Neff discloses: at least one force and/or position sensor (one of 98-100) is assigned to the connecting piece in an area of the mounting of the at least one actuator.

With respect to claims 30, Neff discloses: at least one force and/or position sensor (one of 98-100) is assigned to the at least one motor element and/or the integrated drive.

With respect to claim 33, Neff discloses: A process for the operation of a linear drive with a motor element (81) mounted on or in a retaining element (89), the motor element driving a pinion (83), optionally via an integrated drive, said pinion interacting with a linear guide (78), said process comprising measuring a force of the pinion in relation to the linear guide in a horizontal and/or a vertical direction (springs 98-100 react to force), and determining and/or setting a preload force (springs set a preload force) of the pinion in relation to the linear guide in order to guarantee a permanent freedom from backlash and/or a permanent two-flank contact between the pinion and the linear guide (the springs perform this function).

With respect to claim 34, Neff discloses: during operation with changing accelerations and/or speeds and/or loads and/or dead weights a preload force between said pinion and said linear guide can be determined and/or changed and/or controlled

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by permanent force measurement in horizontal and/or vertical direction for the control of a plurality of actuators (springs 98-100 perform these steps).

With respect to claim 35, Neff discloses: controlling the preload force between the pinion and the linear guide depending on acceleration during operation in order to guarantee a permanent freedom from backlash and/or a permanent two-flank contact between the pinion and the linear guide (springs 98-100 perform these steps).

With respect to claim 36, Neff discloses: via the guide elements, in particular the leaf spring elements (98-100), permanently setting a preload force via the at least one actuator and permanently changing the preload force and/or adapting the preload force during operation to change accelerations and/or loads and/or speeds (springs 98-100 perform these steps).

### ***Conclusion***

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to TERENCE BOES whose telephone number is (571)272-4898. The examiner can normally be reached on Monday - Friday 10:00 AM - 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Ridley can be reached on (571) 272-6917. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Terence Boes/  
Examiner, Art Unit 3656

/Richard WL Ridley/  
Supervisory Patent Examiner, Art Unit 3656